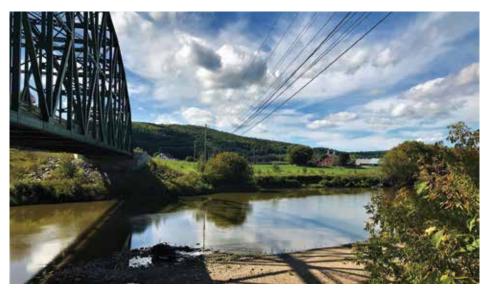


Conservation Innovation Grant Research Initiative Linking Farm Phosphorus Reduction Planner to Total Maximum Daily Load

By Sonia Howlett, VT Agency of Agriculture, Food & Markets

he Vermont Agency of
Agriculture, Food and Markets,
Water Quality Division seeks
10-12 farm operations willing
to participate in a Conservation
Innovation Grant (CIG) research
initiative 'Linking Farm Phosphorus
Reduction Planner to Total
Maximum Daily Load (TMDL)'
funded by the United States
Department of Agriculture Natural
Resources Conservation Service.

This CIG research initiative will lay the groundwork for a new program, the Vermont Pay for Phosphorus (VPFP) Program. Pay-For-Phosphorus is an innovative



pay-for-performance approach that pays farmers for the pounds of phosphorus reduced by implementing conservation practices, as opposed to paying farmers a portion of the cost to install a practice. In 2016, the Environmental Protection Agency reestablished a Phosphorus TMDL for the Lake Champlain Basin, which includes

specific reductions on agricultural land ranging from 20.0% to 82.8% per lake segment. The novel pay-for-performance VPFP program will pay farmers for phosphorus reductions beyond the Total Maximum Daily Load Base Load. The Agency anticipates providing the first phosphorus payments under the VPFP Program based on the 2022 growing season. You can learn more at agriculture.vermont.gov/VPFP.

The Agency is seeking 10-12 farms statewide who are willing to participate in our CIG research initiative, which will be critical in the development of the VPFP Program. Interested participants must manage at least 15 acres of

continued on page 5

AGRIVIEW

Vermont Agency of Agriculture, Food & Markets

116 State Street Montpelier, Vermont 05620-2901

CHANGE SERVICE REQUESTED

Nonprofit Org US Postage PAID Permit #10 White River Jct VT

Inside This Issue

The View from 116 State Street Page 2	Working Lands: Pine Island Farm Page 14
NE Dairy Business Innovation Center Page 3	Remnewal Season for Pesticide Products Page 14
Product Brief: Climate Change Page 4	Staff Remember Jack Lazor Page 15
Honoring Jack Lazor Page 6	Frostbite Page 16
Safe Snow Removal Page 7	The second second
Staff Retirements Page 7	()()
Phosphorus Innovation Challenge	
Water Quality Results . Page 9	
Vermont Vegetable and Berry News Page 10	- 0 1 E
Classifieds Page 11	
	The Court of

THE VIEW FROM 116 STATE STREET

t goes without saying many of us are happy to see 2020 in our rear-view mirror.

Last year at this time we had no idea what 2020 was going to serve up. The pandemic is still with us but as I write this, there is hope that better days are ahead of us in 2021.

The Agency spent most of 2020 responding to the pandemic. Our goal, working with other agencies within state government, was to make sure the farm community and the public remained healthy and offer economic relief to those who were hurt by the pandemic. We are thankful for the farmers and producers who continue to manage the ups and downs of the market caused by COVID-19. They kept us fed and continue to make sure the stores, Co-op's, farm stands, farmers markets, and CSAs are

AGRIVIEW

(UPS 009-700)

Agriview is Vermont's Agricultural Publication of Record. It is published monthly by the Vermont Agency of Agriculture Food & Markets, 116 State Street, Montpelier, VT 05620-2901

Telephone: (802) 828-1619 www.Agriculture.Vermont.gov

ANSON TEBBETTS, Secretary Agency of Agriculture, Food & Markets TERRY SMITH Editor

FAITH RAYMOND, Managing Editor Advertising and subscriptions: *E-mail*: agr.agriview@vermont.gov

The State of Vermont is an Equal Opportunity/ Affirmative Action Employer and Provider.



stocked with food for Vermonters and shoppers across the Northeast. The pandemic highlighted strengths and weaknesses in our food system. We will learn from this and work on improving this system that begins on the farm and ends at the dinner table. This did not come without leadership and sacrifice by so many including our first responders, health care workers and the countless volunteers.

The Agency took pride in managing a multi-million-dollar economic recovery program. Governor Phil Scott and the legislature made it a priority to send CARES dollars back to the agriculture economy. Many faced huge losses. The final numbers are not yet available but close to \$30 million dollars was sent to farmers, producers, farmers markets, fair and field days, and value-added food operations in Vermont. We thank all of you for your patience as we worked through those grants. We know the applications might have been complicated and timeconsuming, but we hope in the end the dollars will keep many on the land with their businesses.

Customer service continues to be a priority of us at the Agency. In our November report to the legislature we highlighted the outreach to the public:

- Over 1,600 emails and phone calls occurred between Agency staff and producers/processors/service providers with questions.
- Two weekly e-newsletters sent to approximately 5,600 recipients, received 7,229 opens and 729 click-throughs to Vermont COVID-19 Agriculture Assistance Program (VCAAP) related content.
- Four social media (Facebook) communications in November related to VCAAP reached over 6,861 unique people, resulted in 73 'Likes' and 217 reactions or engagements.
- Fifty Agency webpages containing VCAAP content received over 6,925 page views, representing 17.57% of all the Agency's monthly web activity.

We did not do this alone. There were many helping hands. Collaboration with the Vermont Housing and Conservation Board's Farm & Forest Viability Network of talented business advisors offered application submission assistance and answered questions for both Dairy and Agriculture & Working Lands applicants.

A few of these testimonials are shared below.

"I also wanted to make sure you know how much you and the agency's efforts to move this forward, especially at such a tough time in the spring, were appreciated. I know you have been all out since mid-March, and I think the entire team at the agency is doing a great job of trying to support our ag community as a whole. So thank you – and please pass that on to your whole team! I know we, at the council, have gotten support and help from every person we've worked with at the Agency all along the way this year, and it is very much appreciated!"

Thank you for your work in helping us finalize our application. This money will help keep our farm moving forward into 2021! Again, thank you.

"Thank you for response!! What a team—you guys are awesome!"

"Thank you so much. This award is really helpful, for so many reasons. Thank you to all of you who have worked so hard to help us. I so much appreciate the community we have in VT"

We are honored to work with you all and wish you a safe and prosperous 2021. Onward.

C. S. Tallo

Anson Tebbetts, Secretary, Agency of Agriculture, Food & Markets

Reminder: The 2021 Vermont Farm Show Canceled Due to COVID-19

By Scott Waterman, VT Agency of Agriculture, Food & Markets

he impacts of the COVID-19 pandemic are well known to most of us at this point. Health and safety precautions, school changes, market and business impacts have all became a way of life in 2020 and beyond. While vaccines should help to make 2021 a more normal year for all, unfortunately this year's Vermont Farm Show is another casualty of the 2020 pandemic. Below is an excerpt from the Farm Show trustees and the Executive Director, Marissa Watson:

"The Vermont Farm Show Board of Trustees has had active discussions over the past several months about holding the Farm Show in January of 2021. We first made the painful, but necessary, decision not to hold a live event in January 2021. We also examined the possibility of holding a virtual event. We have decided that, although it was exciting to consider the possibility of holding a virtual event, we did not have the capacity to arrange and hold a successful virtual event to accomplish what we expect everyone wanted: high participant attendance, excellent audio/visual effects and vendor/exhibitor satisfaction at a cost-effective level for all.

However, we will be back in 2022 for the Vermont Farm Show at the Champlain Valley Exposition in Essex Jct., Vermont. We will stay in touch as we work to make the Vermont Farm Show a successful event in 2022 for everyone."

We hope to see you all at next year's Vermont Farm Show!

Northeast Dairy Business Innovation Center Kicks Off!

By Kathryn Donovan, VT Agency of Agriculture, Food & Markets

s we enter the new year with renewed hope and energy for the months ahead, our Northeast Dairy Business Innovation Center team is pleased to share that we are moving into the exciting phase of ramping up outreach and getting new projects underway. The DBIC now has three staff members engaged in launching projects, leading communications, and ensuring the regional dairy sector knows about opportunities to support their business goals.

Looking forward, we will share monthly updates and project highlights of the work happening through the Center via *Agriview* and our new NE-DBIC newsletter. There are many exciting projects that are either currently underway or will be happening soon in our region that we look forward to sharing with you.

Northeast DBIC Overview

As you may remember from past issues, the Vermont Agency of Agriculture, Food and Markets was awarded \$6.59 million over 2019 and 2020 from the USDA Agriculture Marketing Service to form the Northeast Dairy Business Innovation Center (DBIC), for projects through 2023. Half of this funding will be granted to dairy farmers and value-added processors in Vermont and the Northeast US. A future article will outline the grant opportunities available to farmers and processors, including eligible projects, timelines, and dollars available.

The purpose of the Northeast DBIC is to provide support to dairy businesses through projects that promote the development, production, marketing, and distribution of dairy products, with



a specific focus on utilizing regional milk production. Projects target dairy farms and processors, while providing additional support through market research and technical assistance and will address four pillars:

- 1. Environmental Resource
 Management: efficient utilization
 of resources, increasing water
 quality, and developing forage and
 cropping strategies
- 2. **Business Management:** business profitability, skill development, and future-focused strategy
- 3. Animals: breed/species that appropriately match business production model and goals
- 4. People: career satisfaction; appropriate compensation; ability to develop; and safe, dignified professional reputation

All projects are geared to ensuring development and positive movement in marketing, distribution, and understanding and meeting consumer preferences so that Vermont and regional dairy products take center stage in dairy cases across the northeastern seaboard. NE-DBIC staff are committed to supporting the dairy sector in ways that will generate outcomes that

sustain family farms while increasing consumer demand for regionally produced dairy products.

Projects Underway

Several projects are currently underway. Please visit the NE-DBIC website to learn more:

- Value -Added Production Safety, UVM-Extension
- Transition Pilot Program, UVM (see December 2020 Agriview for more details)
- Goat & Sheep Dairy Market Research, Atlantic Corporation

- Business Management: Dairy Visioning Workshop, Julia Shanks & Noah Munro
- Distribution Innovation, Vermont Cheese Council

Upcoming Projects

A sneak peek of the projects that will be getting underway early in 2021:

- On-Farm Dairy Technical Assistance, UVM-Extension
- Sensory & Microbial Research for Specialty Cheese, UVM/Tufts University
- Farmworker Safety Program, Agri-Mark/UVM/Cornell University

Stay in the Loop!

In addition to *Agriview*, you can stay up to date on NE-DBIC projects, resources, and opportunities to engage through our NE-DBIC website, newsletter, and social media:

- Website: https://bit.ly/3fwFljG
- Newsletter sign-up: http://eepurl. com/g77WXT

For more information, you may contact Laura Ginsburg 802-522-2252 or laura.ginsburg@vermont.gov or Kathryn Donovan 802-585-4571 or kathryn.donovan@vermont.gov



VERMONT FOOD SYSTEM PLAN PRODUCT BRIEF:

Climate Change & Agriculture

Editor's note: This brief was part of the Vermont Agriculture & Food System Plan: 2020 which was presented to the legislature in January of this year. The full report may be found on our website https://agriculture.vermont.gov/document/vermont-agriculture-and-food-system-plan-2020

Lead Author:

Joshua Faulkner, University of Vermont

Contributors:

Alyssa White, UVM
Graduate Student
Alex DePillis, Vermont Agency
of Agriculture, Food and
Markets

What's at Stake?

Vermont will face considerable disruption to the local food system and farm profitability and viability because of climate change . In addition, the significant impact of climate

change¹ on global food production and supply chains intensifies the need to increase the resilience of Vermont farming and local food systems and maintain our agricultural land base. Supporting Vermont farmers' efforts to adapt will also reduce greenhouse-gas emissions, improve water quality, and perhaps make farmers more competitive with farms outside Vermont. Additional training, education, financial support, and research on adaptation will help farmers be resilient and innovative as the climate continues to change.

Current Conditions

Climate change effects on Vermont agriculture are largely dependent upon the type of farm, its specific production system, and its location and exposure to extreme events (e.g., flooding). Observed climatic

changes include an increase in annual precipitation, a greater frequency of heavy storms, warming in annual average temperature, and higher temperature extremes. Projections estimate that these trends will continue to intensify, with more rain through the winter and spring months, and an increased risk of drought in late summer. For farms, this means increased pest and disease pressure, water stress in crops, and more heat stress on livestock. Wet soils are already a significant concern and will continue to exacerbate resulting soil compaction, along with the risk of greater runoff, erosion, and nutrient loss from fields due to heavy storms. Overall, farms may face fewer field-working days due to wet soils in the spring, despite a lengthening of the growing season. At the same time, reliable water sources will become increasingly important for all farms, and efficient irrigation will be critical to sustain fruit and vegetable production. Apple growers will face an increased risk of frost damage as a result of warmer winter and early spring temperatures. Sugar maple sap runs may occur earlier in the winter, and result in a sugar season with fewer days when sap can be collected. Farmers are adapting to the observed changes to some degree, but many lack the capacity

to invest in adequate

adaptation measures. There

is also significant interest

by farmers in employing management practices that store carbon and help mitigate climate change, but financial incentives for doing so are currently lacking. More action is necessary to maintain agricultural viability into the future.

Bottlenecks & Gaps:

- A recent survey indicated that vegetable and berry growers utilized crop insurance at a very low rate (7%) due to restrictive guidelines or structure of the programs.²
- A strong majority of farmers understand they are vulnerable to extreme weather conditions.
 Fewer claim to have the

- knowledge and skill to deal with the threats. Only 45% say they have the financial capacity to deal with the threats.³
- Climate change adaptation is not currently funded by any financial and technical assistance program in Vermont.
- Applied research on specific adaptation practices is lacking for a variety of farm types, enterprises, and sizes.

Opportunities:

 With research and by drawing upon agricultural knowledge and practices now being used in regions south of Vermont, new enterprises and crops can be adopted that are more

Figure 1: Vermont's precipitation has been changing and will continue to change. This figure shows projected change in monthly average precipitation between the period 1980-1999 and 2050.

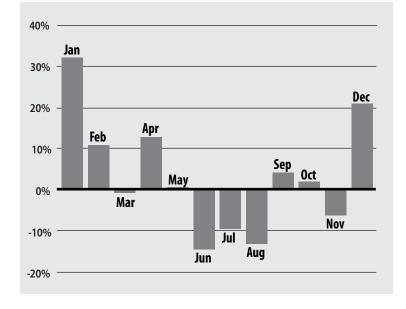


Figure 2: Very heavy precipitation events have been increasing. This figure shows the increase between 1958 and 2016 in regions around the country. The Northeast has experienced the greatest increase. (99th percentile precipitation. Numbers are percent change).

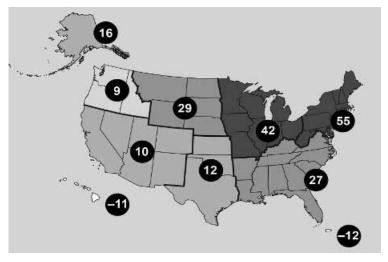


Figure source: CICS-NC and NOAA, found in USGCRP, 2017: Climate Science Special Report: Fourth National Climate Assessment, Volume I [Wuebbles, D.J., D.W. Fahey, K.A. Hibbard, D.J. Dokken, B.C. Stewart, and T.K. Maycock (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 470 pp. (p 20)

. . . .

resilient to the expected climate conditions and associated impacts.

- With research, new enterprises and crops can be adopted that are more resilient to the expected climate conditions and associated impacts.
- New programs could be developed to pay farmers to implement practices that help mitigate climate change and/or provide other ecosystem services (e.g., water quality, soil health, etc.).
- Significant greenhouse gas emission reductions and carbon sequestration on a national and international scale can help slow down climate change, giving Vermont agriculture more time to adapt. Vermont can support and partner

with larger movements to encourage climate action.

Recommendations

- Fund a training program to be given to all agricultural service providers on the observed and projected changes in Vermont's climate, how it can affect agriculture, and basic adaptation principles. What is learned in these trainings can then be shared with their farm clients. Existing farmer networks can be utilized for climate change outreach and education, especially through peerto-peer connections.
- Further investigate market mechanisms and existing systems, nationally and internationally, including voluntary, bilateral, and

compliance, for providing payments to Vermont farmers for sequestering carbon and reducing greenhouse gas emissions.

- Investigate innovative funding mechanisms for assisting with implementation of climate change adaptation practices (such as cover crops and building organic matter in soil), crop insurance for diversified Vermont-scale farms, and emergency recovery following extreme weather events, so that we are better prepared to respond when climate change related events occur. Even with technical assistance program support, some water quality Best Management Practices (BMPs) that
- assist with climate change resiliency are still financially out of reach for many farms.
- By 2023, create carbon sequestration offsets protocols within
 Vermont's rules for the Regional Greenhouse
 Gas Initiative and the emerging, analogous
 Transportation Climate Initiative.
- 1 Dupigny-Giroux, L.A., E.L. Mecray, M.D. Lemcke-Stampone, G.A. Hodgkins, E.E. Lentz, K.E. Mills, E.D. Lane, R. Miller, D.Y. Hollinger, W.D. Solecki, G.A. Wellenius, P.E. Sheffield, A.B. MacDonald, and C. Caldwell, 2018: Northeast. In Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change

Research Program, Washington, DC, USA, pp. 669–742. doi: 10.7930/NCA4.2018.CH18

Janowiak, M., D. Dostie, M. Wilson, M. Kucera, R. Howard Skinner, J. Hat eld, D. Hollinger, and C. Swanston. 2016. Adaptation Resources for Agriculture: Responding to Climate Variability and Change in the Midwest and Northeast. Technical Bulletin 1944. Washington, DC: U.S. Department of Agriculture.

Wolfe, D. W., DeGaetano, A. T., Peck, G. M., Carey, M., Ziska, L. H., Lea-Cox, J., ... & Hollinger, D. Y. (2018). Unique challenges and opportunities for northeastern US crop production in a changing climate. Climatic change, 146 (1-2), 231-245.

- 2 White, A., Faulkner, J., Sims, S., Tucker, P., & Weatherhogg, K. (2018). Report of the 2017-2018 New England Adaptation Survey for Vegetable and Fruit Growers. Department of Plant and Soil Science, University of Vermont. Burlington, VT.
- 3 Ibid.

Conservation Innovation Grant

continued from page 1

hay or cropland and be interested in providing input for the development of the VPFP Program.

The expectations for interested participants include:

- Collaborate with Agency non-regulatory staff over the course of the year from March to December of 2021
- Provide the Agency with the following information:
 - 1. up to date plan for crops and nutrient application for all fields for entire farm operation for the 2021 calendar year and farm maps to correspond with these fields
 - 2. up to date soil tests (within three years) for all fields, and manure tests for all manure sources

- 3. an update about any changes from your initial plan midsummer (July) and end of year (December)
- Attend a seminar to gather final input and review results of data analysis
- Complete surveys about your experience participating in this research initiative
- Optional Allow Agency staff to trial a field check protocol for your farm
- Optional Attend, present and/or serve on a stakeholder advisory panel for VFPF Program (Please note that this is not guaranteed based on CIG participation)

As a participant in this initiative, the benefits include a onetime incentive payment for participation of \$1,750, and the opportunity to help inform a pay-for-performance approach to conservation

in Vermont. There will be the opportunity to provide feedback for program development based on your farm management and based on your experience in this initiative. The Agency is also able to automatically enroll participants in the Farm Agronomic Practice (FAP) program for any eligible conservation practices (go to agriculture.vermont.gov/fap to learn about FAP eligible

practices) planned for 2021 season. Lastly, participation in this CIG initiative will provide priority ranking for the first ever Phosphorus payments under the VPFP program in 2022 (pending all state and federal eligibility and compliance processes required for receiving those funds).

If you are interested in participating in this research initiative, please reach out to

Sonia Howlett at 802-522-4655 or Sonia.Howlett@ Vermont.gov, or complete this intent to participate form and Agency staff will be in touch by March 1st, 2021.

This material is based upon work supported by the U.S. Department of Agriculture, under agreement number NR201644XXXXG001.



Honoring Jack Lazor

by Lynn Ellen Schimoler, VT Agency of Agriculture, Food & Markets

ince the inception of Butterworks Farm in 1976, Jack and Anne Lazor have focused their farming efforts concentrating on organic dairy farming, value added dairy products and more recently, climate smart farming and water quality issues. From 1979-81, they sold raw milk products, Jack driving products from door to door. When their homemade processing plant practice came into the regulator's radar, Anne shared with me how helpful the State was in advising how to get licensed. Butterworks first received its milk handlers license in 1984 and has been supplying markets in Vermont and the Northeast ever since.

The barn for the cows was built in 1982, originally housing 12 cows downstairs, now with capacity for milking 36-38 cows.
Butterworks' herd has grown from six Jersey cows to a total of close to 80 head, including mature cows and heifers. Presently there are five full time and six part time employees divided between the farm and the dairy plant.

When products first hit the store shelves in 1984, they were one of very few brands at a time when yogurt consumption was experiencing an exponential rise. Folks might remember Cornucopia, Northeast Cooperatives and Stows Mills trucks delivering their products up and down



Erica Cummings shared some photos of Jack from her time working with the UVM Northwest Crops and Soils Program and Northern Grain Growers Association (NGGA). Above: Jack in one of his heirloom spring wheat fields.

the East Coast. Stow Mills eventually became United Natural Foods (UNFI) - one of the largest distributors in the US, supplying Whole Foods and National Cooperatives Grocer's group of food co-ops. Butterworks yogurt and kefir that go to the North Atlantic division of Whole Foods is distributed by United Natural Foods. The advent of Greek yogurt and other emerging brands has since reduced sales in a competitive marketplace. The aggregation and distribution piece is another continued challenge, for farm and food producers in Vermont. Butterworks has significantly decreased their delivery trucks on the road and begun to depend on a diversified set of distributors such as Black River Produce, VT Connex, Farmer's to You, Myer's Produce and Pete's Greens CSA on occasion. It should be noted that in times of supply fragility,

finding solutions for supply chain strengthening is not a surprising Lazor endeavor.

One of my favorite tidbits about Butterworks Farm is their naming methodology for the cows. Naming groups range from countries like Morocco and Mexico, or astronomical terms. Herbs like Mustard, (Mother of Dill), and Minty and Melissa (Latin name for Lemon Balm). And of course, Fruits and Vegetables. Apricot had twins Blackberry and Raspberry - with a full sister named Banana. Apple Core had Apple Skin, and there is currently an Applesauce in the barn right now. Many may not know that some cows from Butterworks become cull cows. In January 2021, some cows will travel to the USDA inspected slaughterhouse Brault's, in Troy VT to be packaged into cuts for retail. Butterworks doesn't offer meat for sale very often. This will be a rare 100% grass fed treat. Stay tuned for the waiting list by visiting their social media tag @butterworksfarmvt. (Avocado and Snowball are the only cows headed to Brault's.)

Clem Nilan, former

General Manager of City

Market/Onion River Co-op introduced me to Jack about 20 years ago. My work with Nilan in the 2000s, along with many other talented staff (Mary Manghis, Pat Burns, Duke Moulton, Rod Rehwinkel, James Morell, Ali Johnson, etc.), worked hard to increase procurement and development of VT products in almost every department of the store which is remembered as a pivotal period in the co-op's timeline. Before arriving to the co-op, Nilan, as former co-owner of the iconic Daily Planet restaurant in Burlington, had called Lazor in the mid-80s to inquire about local beef options for the menu. Nilan shared with me that Jack had picked up the phone, proclaiming "I'm in the barn, right now - do you hear that?" (Sounds of cows) "Well, let me see, she's not for long for this world, but you can ask her'. The quality of Butterworks dairy products is widely known, but what struck me about Jack was his genius and curiosity for other crops. While at the co-op, we were able to slot Lazor's Early Riser heirloom cornmeal sold in the bulk bins, and then eventually Black beans. These were all limited edition items, tough to manage from an operations standpoint, but worth the value of

showcasing excellence in agriculture and elevating eater awareness. Over Thanksgiving, I stumbled across an old cookbook: Living Soils, Thriving Farms, Heathy Communities: Recipes from Rural Vermont. On page 25 are recipes from Anne, highlighting the use of some other Butterworks bean varieties: Yellow Eye, Jacob's Cattle, and Soldier. Marfax and King of the Early - being one of Jack's favorites were two other beans grown by this talented farmer. I am so grateful to have experienced the teachings of Jack Lazor that span my work in both private and public sectors of food systems work. Last year, the Working Lands Enterprise Board awarded Butterworks Farm with a \$20,000 grant for market research, product development, and educational videos for climate resiliency. In usual fashion, consultants and experienced cheesemakers will assist with the project efforts as we know that collaboration comes easily to the Lazor's.

I feel honored to know and have learned from Jack over the years. I am honored that Anne and Christine Lazor both would take time away from farm operations, family, and precious personal time to assist with getting this article right. As posted into their Instagram feed, here was my last note to Jack: 'Dear Jack: grateful for your wisdom and generosity. Honored and happy for our recent phone call and for the visits to the farm with you,

continued on page 15

Safe Snow Removal from Your Barn Roof

By Cornell University

hen the snow comes down heavy and hard, it's time for farmers to start thinking about barn roof safety.

Heavy snow can put barn roofs at risk, but snow removal must be performed carefully. Removing snow without the proper approach can actually cause more damage, by creating an unbalanced load. Remember, your number one priority must to be protect your own safety! Farmers are encouraged to consider these safety tips, provided by Cornell University, when considering snow removal from a barn roof.

Do...

- DO consider a systematic approach. You need a plan!
 For a diagram of the best way to remove snow from your barn structure, see this tip sheet from Cornell
- DO listen for creaking or moaning – if your barn is built from wood, unusual sounds may indicate there's trouble afoot
- DO look for bending or bowing rafters, headers, or columns. There are often visual cues to be found if you look carefully at the structure
- DO ask for help. You can't do this alone.
 Who is your back up?
 Is there anyone in your community with expertise or equipment, who might

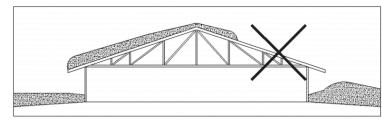
be willing to help?

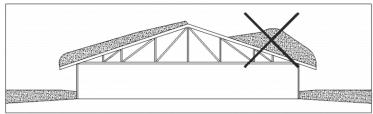
Don't...

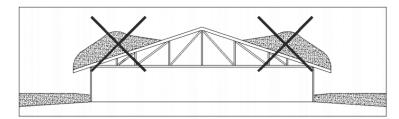
- DON'T remove snow unequally from the roof. Unbalanced loads can create even more problems.
- DON'T pile snow atop the roof. Do not simply move the snow from one area of the roof to another
- DON'T attempt to clear the snow yourself! Make sure there are others nearby, helping and watching, in the event of a problem

Most importantly, do not put your own safety at risk.

For a full overview of the best way to remove snow from a barn roof, visit http://blogs.cornell.edu/







beefcattle/files/2014/11/ SnowRemoval-1f9lq43.pdf

Vermont farmers are critical to our landscape,

heritage, economy, and communities. We have *none* to spare! Be safe!

Thank You for Your Service

Dominique Golliet

Here in Montpelier, there is an often-re-told story of an interview for a field agent position. According to rumor, the interview committee asked, "Why do want this job?" and in a hearty thick French accent the response was, "I must put a steak on zee plate". To this day, we have no way knowing if the response to this question really worked in his favor or not, but we do know that that was the day Dominique Golliot was hired and the Agency and Vermont agriculture has been all the better for it.

Dominique was born and raised in Calais (France), went to University of Reims Champagne-Ardenne. Upon graduation, he worked in many different agricultural industries, including the French government. Dominique traveled the world, living in multiple countries in Africa—but always working in agriculture. Finally, he settled in Brandon, Vermont. From there, he served Bennington, Rutland, and Addison Counties as a pesticide, feed, seed, and fertilizer specialist.

Dominique's favorite activity in his job was getting out and talking with farmers. If there ever was any need at the Agency to interact or assist, with farmers, Dominique was always first to volunteer. Need someone to be teach a class on Tuesday night at 8PM in Ferrisburgh? He'd be there. Need a last-minute fill-in to

calibrate maple hydrometers in Bennington on a snowy Saturday morning? He'd be there. He loved to hear what was happening in agriculture and took great pride in ensuring that Vermont food and people were safe. We will miss him, as he retired in September, but we are hoping he is enjoying that well-deserved steak.

Sue James

Sue retired from her position as Dairy Farm Program Supervisor after 36 years with the Agency of Agriculture, Food and Markets on December 18, 2020. Sue leaves behind a legacy of dedication to the Agency and our dairy industry that few can match. Sue began her journey with



Sue James

the Agency on November 4, 1984 after working seven years for Kraft Foods when they were in Middlebury, VT conducting quality control in their laboratory. Sue's passion for the dairy industry began during her childhood in Weybridge, VT growing up on her family's dairy

farm. Sue's contributions to the Dairy Section and dairy industry over her career leaves the Dairy Section and the sanitation and safety of our milk supply stronger than they were before Sue's arrival. Sue has been a mentor to many Agency colleagues, an advisor to dairy farmers all over Vermont, and a trusted colleague of those inside and outside of the Agency of Agriculture for a very long time. Her wisdom, congeniality and good sense of humor will be missed by those who have had the privilege of working with her over the years. We wish Sue all the best and a full enjoyment of her welldeserved and well-earned retirement

.....

Vermont Phosphorus Innovation Challenge November 2020: Progress Update

By Kaitlin Hayes, VT Agency of Agriculture, Food & Markets

he Vermont Phosphorus Innovation Challenge (VPIC) was announced in February 2018 as an X-Prize style competition to harness creative solutions to address phosphorus pollution in Vermont. VPIC complements ongoing, essential work to install conservation measures and best management practices to reduce phosphorus losses from farms and in stormwater runoff from developed lands.

Of the 27 initial VPIC applicants, five projects were selected in November of 2019 to move on to Stage Three for full scale implementation of their innovative technology or design. Each awarded project is unique and proposes an effective and

innovative solution to address the phosphorus pollution that impacts water quality statewide.

Agrilab Technologies Inc.

Agrilab Technologies Inc.'s (AGT) Stage Three VPIC proposal includes the establishment of a hub and spoke network of five on-farm composting and phosphorus processing sites. AGT has been engaged in establishing the market demand for composted materials created from cow manure, with various combinations of nutrient additives. AGT worked closely with the Vermont Sustainable Jobs Fund (VSJF) to document the demand for bulk and bagged products, as well as willingness to pay for locally produced fertilized for use by Vermont farmers, in home gardens, specialty

crop growers, etc. AGT has been working on equipment fabrication, site development tasks, and additional business planning.

Digested Organics

Digested Organics has been engaged in the fabrication and construction of a mobile manure screening and ultrafiltration system to be used on a Vermont dairy farm to remove phosphorus and suspended solids. The design for the UF System is complete, as is the fabrication of the UF modules. The 20' trailer transporting this equipment has been completed. The next component to be fabricated will be the steel frame that holds the modules and other components. The unit is expected to be complete and in Vermont before the end of the year.

DVO, Inc.

During Stage Three, DVO has engaged in two different studies to explore methods of drying materials produced from anaerobic digesters at dairy farms which are then enhanced using a Dissolved Air Floatation Device (DAF) process, capturing valuable nutrients for advanced solids control. The goal of the project is to develop a 'P-Cake' product that is high in phosphorus and other nutrients. This product can then be processed, bagged and/or bottled as a marketable retail product, in addition to being used to create, sell, and distribute bulk fertilizer and soil amendment materials from



Side by Side PePhlo Reactors (UVM Photo)

a facility established in Vermont.

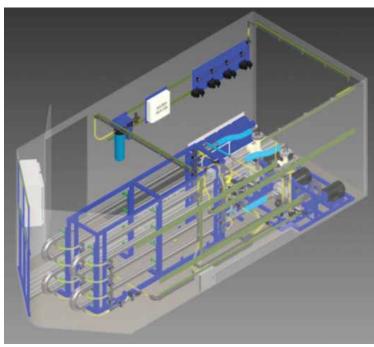
University of Vermont

The University of Vermont and the Village of Essex Junction, along with several other partners have developed and been testing Pe -Phlo (pronounced P Flow). A mobile, flexible, and scalable solution for Phosphorus capture and removal. Pe -Phlo applications focus on reduced installation and operational costs without the investment needed for conventional Phosphorus removal approaches. This technology may well prove cost effective for Phosphorus removal in Vermont sized wastewater applications. Construction of the Pe -Phlo reactor designed during the capstone project remains in process. The research on branding, market niche, as well as competitive

equipment and process identification will serve well for further work on a business plan as pilot work continues.

Green State Biochar

Green State Biochar (GSB), a producer of enriched biochar, has been actively working on honing in their biochar filter design prototypes to meet reduction efficiencies that would indicate the effectiveness of the prototypes, such that these practices might be used more broadly as a solution to varying water quality or nutrient management concerns located on farm operations. Simultaneously, GSB contracted with Atlantic Corporation of Waterville, Maine to explore the market demand for GSB's enriched biochar products.



Trailer Design for Portable Ultrafiltration System (Digested Organics Photo)

Water Quality Results Delivered Collaborative Efforts of Farmers and Conservation District

By Sarah Damsell, Orleans County Natural Resource Conservation District (OCNRCD)

ndre Morin's farm is in the town of Holland within the Stearns Brook watershed. Stearns Brook flows northeasterly and is listed on the VT Dept of **Environmental Conservation** 2016 stressed waters list for agricultural and gravel road runoff and morphological instability. Stearns Brook drains to Quebec's Lake Massawippi which has elevated levels of phosphorus. The coordination efforts of Orleans County Conservation District staff, Sarah Damsell, and other partners' focused efforts have improved water quality conditions by implementing best management practices (BMPs) throughout the watershed. Orleans County Conservation District staff started working with Andre in 2016 when Andre agreed to participate in the farm BMP effectiveness monitoring program. Elevated levels of phosphorus in the unnamed waterway that runs through the Morin farm were discovered by the Orleans County Conservation District through the VTDEC LaRosa Volunteer Water Quality Monitoring program. Samples were collected eight times per year including two rain events in 2017, 2018 and 2019 at two locations, above and below the farm.

Andre Morin bought his 116-acre farm from his parents in 1992, who had purchased it in 1984. In 2016, he started working with the Vermont Land Trust and the Vermont Housing & Conservation Board to place a permanent conservation easement on his farm. As part of the easement terms Andre agreed to address all Required Agricultural Practices (RAPs) including addressing the herd management practices of a heavy use production area adjacent the waterway. With assistance from Orleans County NRCD staff he has discontinued the practice of feeding in paddocks adjacent to the waterway and allowing livestock access along the waterway.

In 2019 Andre completed a new heavy use area barn yard project with funding from the Vermont Agency of Agriculture, Food and Markets' Best Management Practices program. He also installed exclusion fencing, alternative watering, stream crossings and laneway projects with funding from the Orleans County NRCD USDA Regional Conservation Partnership Program to bring the farm into compliance with the RAPs. Andre said, "The project improved the farm because the cows are out of the mud, there is more room to feed in one place, it is easier to maintain, it helps my manure management, it looks a lot nicer and the work benefits the local waters because the cows



Andre Morin has worked with a variety of state and federal water quality partners to improve water quality on his 116-acre farm in Holland, VT.

are not going in the stream whenever they want." He sold his cows in the winter of 2020 because of his personal health limitations but his brother John will continue to use the facilities, pastures and crop fields.

The installation of BMPs in summer of 2019 appears to have dramatically reduced the phosphorus loading from the farmstead and pasture areas. Analysis suggests that there was an 85% reduction in phosphorus levels, with over a 99 chance that this is statically significance. It is unusual to be able to document such a dramatic improvement with only one season of data.

Andre believes that farm conservation work that helps water quality "is good because everybody uses rivers and lakes and if we don't keep them clean then we will all pay the price.

When one farm here and another farm there does a project like this it adds up to have a bigger effect and I am proud to be a part of that work." Andre said he would suggest to other farmers doing this work because "Working with the staff was real good, everyone listened to my suggestions and their openness was a big help. If you have time to work on the project, they

will help you do it!"

Like Andre, many farmers have done significant work on their farms to improve water quality and Orleans County Conservation
District is honored to be involved with their efforts.
To learn more about our work and the Morin farm story please go to our website https://www.vacd.org/conservation-districts/orleans-county/.

CSFO Reminder: Annual Certification Forms Are Due January 31, 2021

Any farm that has 50 acres or more of annual crops, houses 50 or more mature dairy cows, or 75 cattle, heifers, veal calves, cow/calf pairs, or youngstock, or 40 horses, or a combination of animals with a total live weight that equals more than 90,000 pounds is a CSFO and must register with the Agency of Agriculture, Food and Markets. Visit www.agriculture.vermont.gov/csfo to learn more and to fill out an online or print version of the Annual Certification Form.

VERMONT VEGETABLE AND BERRY NEWS





Compiled by Vern Grubinger,
University of Vermont
Extension
(802) 257-7967 ext. 303, or
vernon.grubinger@uvm.edu
http://www.uvm.edu/
vtvegandberry/

Vermont Vegetable & Berry Web Site Has Moved

After many years of service the web site www. uvm.edu/vtvegandberry has expired. A new site for its content has been created at https://www.uvm.edu/extension/horticulture/commercial

This new site merges access to UVM's tree fruit and grape pages with vegetables, berries and high tunnel content. It is not yet complete, but getting there, thanks to the UVM Extension web team. Please update your bookmarks if you have them.

2020 Vermont Vegetable And Berry Grower Webinars

Slides and recordings of past webinars, and list of planned webinars now posted at https://www.uvm. edu/extension/horticulture/ vermont-vegetable-andberry-grower-webinar-series

Reports From The Field

(Burlington) Picking broccoli on December 1st reminds me that a hail-Mary late cover crop seeding is a good idea. Though it doesn't work every year, our early November planting now looks pretty good. Crops are indoors and storing well; I wish I could order a modestly dry autumn every year. Tunnels are growing quickly with the mild temperatures, hoping we don't run through them all too quickly and therefore lack green things later for our winter CSA.

Thinking ahead to 2021 I have to remind myself that we need to warm up the soil in our cucumber house prior to planting, as we had much better stand establishment May of 2020 when we closed up the tunnel to bake for 7-10 days prior to transplanting. Likewise, I need to get on the Pediobius (beneficial insects) train, as bean beetles have decimated our snap beans the past two years.

The Greenhouse Tomato Trellis overhead hooks from Nolt's were so much quicker and easier to manage than wooden stakes for our indoor determinate tomatoes, and we plan to convert our indoor peppers to the same system next summer. Looking forward to better hot-weather salad with a shift from row covers to insect netting for our summer plantings, and also to growing more of the really excellent DM resistant basils bred by Rutgers, which will pair nicely with many of the new hyloom tomatoes now available for purchase. 2020 was an awful year in so many ways, but I still get excited about next growing season, and I am happy for that.

(Westminster) We're still cutting field spinach and picking kale. Plenty of storage crops to pack out through the winter and keep workers busy. We're also getting ready to mulch strawberries, and to start the Winter Market at the farmstand, opening Dec. 11 on Fridays and Saturdays.

We are also looking forward to enough ice so we can host community pond hockey, as we always do.

We were sorry to hear of the passing of Jack Lazor of Butterworks Farm, a cherished friend and colleague and a muchadmired farmer, one of the first to introduce organic farming to Vermont.

(Huntington) I went out and took some soil penetrometer readings this weekend and got some interesting results. We have been doing some more shallow tillage with a high-speed disc harrow and I wanted to see if it was making any sort of plow pan at its ~4" working depth, as no-till evangelist's claim will happen.

Testing some fields that had oats and peas planted late-August, I found zero evidence of any shallow plow pan, and was kind of surprised to find no real consistent plow pan at any depth. The penetrometer readings increased up to near 300 psi (the red zone you're supposed to avoid) at ~8-9" in some spots but was able to push deeper with only a slight increase in pressure in those spots. In others I was able to go ~16"+ deep without entering the red zone on the meter. I then moved out of the field into the hedge row and found more-or-less the same pattern. We do have gravel and rocks, so it's very easy to get a high reading if you encounter a hard object like

that, as well.

I then tested some wheel tracks in late brassicas that have not seen any fall tillage nor cover crops, and the soil was compacted above 300 psi almost immediately, as one would imagine following a season of tractor traffic.

My current theory is that tillage in our sandy loam soils is seemingly mitigated by intense cover cropping, our relatively light axle loads, and proper tire inflation pressure in the field. Additionally, shallow tillage with highspeed disc harrows that carry most their weight on a large diameter rear roller and the tractor's 3-point hitch appear to not lead to the infamous plow layer smearing that conventional tandem discs are renowned

(Rochester) The two
Thanksgiving markets
we usually do—indoor
events—were cancelled due
to the pandemic, but sales
of value-added goods have
switched to online ordering
and curbside pickups. We're
making about the same sales
without the expense and
effort of physically traveling
and setting up a booth. It's
another way the pandemic
has been the mother of
invention.

(Elmore) Warm, cold, warm, cold. That seems to be the mantra this year. Gives us a lot of time to get things done, stay in shape and learn how to stay warm and dry as we work outside in constantly changing conditions.

Planted pear trees, mulberry trees and plum trees last week ground still soft and workable. Planting pine nut seeds and hazelnuts in metal hardware cloth, hoping to get a harvest and not just feed the voles and red squirrels all winter. The key is to plant as close as possible to when the ground freezes. this year it keeps freezing and thawing again and again.

Got our new "Missouri gravel beds" built and filled with pea stone. Will be digging a lot of trees to plant in them and see if it is really true that you can gently pull them out in midsummer in full leaf and transplant them without a pot or heavy earth around their roots. Exciting to be a pioneer of sorts in Vermont.

My physical therapist says that we farmers are "agricultural athletes." This has sure been a year to test our athletic skills with the interesting weather and new challenges of working together outdoors in the cold or heat when so many others are holed up in houses and offices. We keep planting and growing foodproducing plants because it gives us hope that many will harvest and be nourished by the work we do now here in Elmore on a snow covered hillside farm.

(Guildhall) Keeping the potato barn at 37 degrees has been challenging due to the relatively warm weather. Storage quality is generally good, though there is some bruising on varieties that were windrowed too early in the morning on cold days in October. A lesson in the importance of patience I suppose but with the rain and frost-induced anxiety of October, I'm not confident I wouldn't do the same thing again.

CLASSIFIEDS

For Sale: BEES AND QUEENS

McFarline Apiaries Untreated bee breeding

VT 5 frame Nucs and deep singles \$200-\$300, Available May-June MCF Queens \$30: June to end of July tmcfarline2@yahoo.com

www.mcfarlineapiaries.com 802-537-3294

Call or email now for details

Cattle

- In Westford, VT...2 Jersey Heifers. One due end of June. One due 1st of July. \$750 each. 802-338-0684.
- 350+ cow and 200+ young stock barn/farm facility available for rent. Complete dairy farm with modern double 10 Boumatic parlor. No livestock included. All buildings have slatted floor, no alley scraping needed. Headlocks in all livestock barns, mattresses. curtains, 2 bulk milk tanks. 700 acres of feed for purchase. Rent, buy or will consider raising young stock for other farmers. Let's discuss the possibilities. 802-533-2984
- Purebred Polled Hereford yearling heifers. Lull Brook Farm call: Alden Dana 802-436-2068 or email adana77@ comcast.net.
- 2 Registered Guernsey cows: Certified A2A2, milking 75-80lbs, both sired by Welcome JT – \$1200 each. 1 registered Guernsey bred heifer due late August A2A2 certified, sired by Latimer; dam is EX90 \$1500. 802-222-4047.
- Yearling beef steers and heifers \$500 to \$600 each. Beef going up and with good pasture possible to double money by fall, also beef cow calf combination \$1000. 802-728-3760
- 3 breeding age bulls- one Hereford, 2 angus for breeding or beef. Asking \$850 each or will consider

- trading for Hereford heifers. 802-586-2857
- 22 Jersey cows 2 bred heifers. 4 fresh Jan, 2 Feb, 3 due Mar, 4 Apr, 1 May, 2 Jun. Can be reg. Feed grain hay pasture. 802-775-3846
- Angus Bulls for sale good genetics, calving ease bulls. Please call 802 533 9804. Greensboro, VT 05841
- REGISTERED ANGUS Cow calf pairs, bred cows Starting \$1500 18 years of Select Sire Artificial Breeding. Call Richard Dickinson at 802-782-9970 or drdickinson@ dbdentalcarevt.com
- Scotch Highland/ Belted Galloway crosses for sale. 2 year old bulls, yearling bulls, cow calf pairs, heifers. call for prices. 802-353-7313
- Cattle- Hereford, Angus, Holstein bulls for sale. All ages. They're respectful of electric fence. Call 802-735-4725 or email louise. resendes@uvmhealth.org
- Black Angus heifers and bulls for sale. Good genetics call for more info 802-558-8196
- Retirement sale: 26 crossbred organic cows, 4 are registered Jersey, rest are Jersey, Shorthorn, Ayrshire and Holstein mix. AI bred to Jersey or Swedish Red to calve in spring and summer. On November 10 still producing 45 lbs on pasture and 10 lbs grain with 4.4% BF 3.3%P. BTSCC 150. \$45,000 for this very gentle

group. Also available 8 well-grown crossbred heifers due in March \$10,000 (802)623-6584

Employment

Larson Farm and Creamery, 30-cow organic grassfed Jersey dairy farm and creamery seeks dairy herd manager who is passionate about sustainable dairy production. Responsibilities include milking, feeding, pasture management, herd health, calf and barn chores. Must be able to handle animals calmly, have basic tractor skills. Cleanliness and good organizational skills a must. 802-645-0865

Equipment

- 24 Horsepower Kabota tractor 2-wheel drive excellent shape. 24 ton Brock Garin bin, 22 ton Brock grain bin, 18 ton Brock grain bin, 11 ton Brock grain bin, all good shape. 2 Farrow plow, Massey Ferguson Baler - Like new. 36ft hay elevator, 24 ft hay elevator. 802-624-0143, 802-895-4683
- 375 gal full tank \$100. CMT bale wrapper \$250. 2 bottom plow \$75. 802-426-3339
- 3000 gallon mueller bulk tank with 2-5 horsepower compressor. 802-487-4467
- Mueller 500 gallon bulk tank with compressor in good condition \$800 OBO. Pequea model 250 3 pt hitch tractor saw with 30" blade like new- \$1000 OBO. 3 pt hitch 4 ft hydraulic log splitter \$1800 OBO 802-893-2262
- Red cedar posts. 7ft \$5.00. Sharp \$5.50. 8ft \$6.00. Haylage 35/ton. 802-265-4566
- 2955 John Deere Tractor 4WD, platform with 740 loader, bucket, forks, bale grabber and rock bucket.4450 John Deere Tractor 4WD, cab, 925 Mower conditioner with impellers.802-236-4716
- Used farm equipment, harrows, rakes, Tedder, all over 20 years old \$20 each. 1 Kaufman trailer 2001 \$150. Call 802-457-2613.
- Gestation tabulator by Willard Bates & Son with 100 pins.

- Make an offer. Snap test kit used twice. Make an offer. Dari Kool 150 gallon bulk tank, \$500. Acorn 17 foot conveyor, \$450.Call 802-933-4159. Leave message, will return your call.
- Irrigation pipe. Tico aluminum pipe. 2"x30". approx 100 pieces available. \$15 each. 5"x30" 30 pieces available. \$30 each. Fittings and sprinklers available. Email for photos or questions.
- chris@lincolnpeakvineyard.com Lincoln Peak Vineyard, New Haven. 802-388-7368
- Grain equipment for sale 2 gravity box wagons in good condition, one with auger, \$1500 each, Beidler Family Farm, Randolph Center, 802-431-8530.
- Loftness snow blower 7 foot. Double auger. Three point mounting. Hydraulic operated shoot. Great condition. Ready to use. Cat 2 or Cat 3 hitch. 100 hp or more to run. \$3,000. New these are \$8,500. Looking to move it. It's a terrific deal. Shaftsbury, VT. 781-307-6801.
- IN 843 combine cornhead; IN 7ft windrow head for 881; Gehl 350 spreader; 5 ton grain bin; 25 ton grain bin; case 580 backhoe and 850 dozer for parts; call 802-770-0959.
- IH 1486 tractor new tires good AC \$11,9000. IH 1086 tractor rice & cane tires runs good \$7800. JD 3 point hitch 6ft finish mower \$200. Full set of 10 weights and weight bar for IH magnum 1st generation tractors \$700. Pair of 20.8-38 duals with snap on rims \$800. IH 2350 loader \$200. 802-537-2435
- 8'x17' tandem trailer, all new wood. Great for moving round bales, \$850. 802-586-2857
- Gehl haylage head Model HA1110 very good running shape \$1100.00 Fits most all Gehls 333-4840
- Master-Bilt 34.5 cubic foot 2-section ice cream hardening and holding cabinet. \$4,500. Call

- 802-436-2948 or e-mail Cobbhillfrozenyogurt@gmail.com
- 2015 Houle manure spreader 5350 gallons 2005 NH FP230 chopper 4 steel wagons 20 feet 2016 Gehl skid steer 165 1 round baie wagon all steel 20 feet tandem krone rake and tedder everything is in excellent shape have sell cows for health reasons. Phone 802-895-2945.
- Case International 8340 mower conditioner, stored inside, in good condition. Running, was used last year during first cut. \$2500 or best offer. 802-518-2155.
- 15 Ton brock grain bin 5 yrs old. 6.9 ton brock grain bin - excellent shape. 90ft hay elevator – good shape. John Deere baler. 11.5 wide MoGoo John Deere Dsic Mower. 9ft 535 Disc mower – like new. 802-624-0143/802-895-4683
- For sale FMC pto air blast sprayer High pressure pump 300-gal tank 36" fan, works good got new sprayer \$2,100 obo 802-344-013
- New holland 479 hay combine runs good 500.bucks. Tel. 430-4378.
- Caretree 501B tree spade. New in 2001, I am the second owner. Digs a 28" ball, truncated blades. Despite its age, the unit has been used very little. Always under cover, no hydraulic leaks. Original owner's manual. Currently configured to SSQA with valve body on roof of machine. Comes with bracket to attach valves for use by assistant standing on the ground, and three legs to allow digging smaller balls. Also included is a small supply of wire baskets and burlap socks. \$3,000.00 obo. Call Russell @ 802-492-3323. I return all messages. Prefer email russreay@ vermontel.net
- DS Livestock steel feeders 8' long #F1330 list price \$590 (220lbs) plus shipping and 4' long #F1310 list price \$390 (110lbs) plus shipping. 8' price \$200 4' price \$100.

CLASSIFIEDS

bearmountainfarmVT@ gmail.com 802-394-7852

FOP 230 new holland chopper. 3 steel 20 feet hay wagons. krone 10 feet 802 323 811080 disc mower mimt . 4 feeder steel wagons excellent 20 feet. gehl skid steer with 2000 hrs. brock grain bin 20 tons. cattle trailer. Andre morin 802 895 2945 cell 802 323 8110

NDE sawdust/shavings spreader. Can be mounted on three-point hitch or skid steer. Benson. Pictures on request. Best offer. 770-8060.

Vacuum pump and replacement motor: 1hp, 115v Lisson vacuum pump and never used replacement motor. The vacuum pump has been used to run a milking machine. In good to excellent condition. \$500. for both Pioneer Forecart: Rubber tires, fenders, in excellent condition. \$800. Contact Lynn at: 802-563-2999 or email at: juneiris@ fairpoint.net

John Deere 440B Log Skidder for sale. \$10,000 Call Henry 802-276-3096

JD 350 Dozer. New treads, many new undercarriage parts. Winch. Runs well. \$15,000. Thistle Hill Farm (info@ThistleHillFarm.com or 802-457-9349)

3 point hitch fertilizer spreader 500# works well 350.00. 802-384-3553 and wallysdomesticzoo@gmail. com

Equine

Icelandic Walking horse cross. He is 14 hh, 2 years old, gelded, and UTD on shots, trims, worming, and coggins and is an easy keeper. He is a beautiful yellow dun with striping. He will be sturdy and medium-sized. He can trot and is also gaited. He needs knowledgeable home and trainer. He is not spooky and very friendly and polite. 900 B.O. 802-384-3553 and wallysdomesticzoo@gmail. com

Farm & Farmland

For Lease: 10 acres of organic meadow in Brandon,

currently in alfalfa. Producing roughly 12-15 tons per year in dry hay. Three-year lease available, price negotiable, but approximately \$600/yr 802-247-8459

Private Horse Farm. 17 + acres. Covered small arena. Large sand ring. Insulated stable with 3 oversize stalls, attached paddocks, feed/ tack room, hay storage, grass pastures with board fencing. Vermont country open concept farmhouse. 3 bedrooms, office, sun room. Solar, cell phone reception, internet. Workshop, chicken house, orchard, stream trails, woods, views. Close to Dartmouth College and DH Medical Center. Equipment and supplies extra. \$549,999. Call 802-785-4410.

General

High Tunnel Greenhouse
Assembly & Maintenance:
Ledgewood, Harnois,
Rimol and more.
Complete Assembly, End
Wall Construction, Poly
Installation, Renovation, and
Repairs. Experienced and
Professional. Plan Ahead!
Get in touch now to get on
the 2020 schedule. Contact
Mike Feiner at feinervt@
gmail.com, www.vineripe.net,
(802) 498-8031.

Shelburne/ 5 gallon pails with handles. \$.75 each. Negotiable for volume purchase. 802-999-4644.

Boumatic pipeline - \$2500 +/-230ft / 2inch / 46 Stalls stainless steel milk line including vacuum line, wash sink, 3 units, control box, and receiver jar is \$2500. \$4000 with vacuum pump. Call (802) 446-2791 Wallingford. Ask for Jerry.

Hay, Feed & Forage

Short on feed? Board your heifers with us and we will feed and care for them! We are retired dairy farmers who have excellent facilities available including headlocks, slatted floors and more. Don't buy feed and pay for trucking—send those heifers here. References available. Call 802-533-2984 and let's talk about your options.



Good quality certified organic Haylage stored in Ag Bags and large round bales 1st,2nd, and 3rd cut. Delivery available. 802-988-2959 or 802-274-2832

Quality Canadian hay for sale, big/small squares wrapped, or unwrapped, round bales wrapped or unwrapped, 1st, 2nd, 3rd cuts available. Switch grass and straw available, call Richard at 802-323-3275

2019 1st cut Timothy and clover hay \$ 5.00 a bale plus delivery fee. Call 603-256-8422

1000 tons corn sileage, processed in Colchester. 50 @ ton 802-272-3478 or 802-223-1370 or email sethgardner@hotmail.com

Excellent quality first cut wrapped round bales; baleage. Shelburne VT Call Andy 802-598-6060. Analysis available upon request.

2019 1st Cut 4X4 Wrapped Round Bales for Sale \$40/ Bale, 2019 2nd Cut 4x4 Wrapped Round Bales for Sale \$45/Bale, South Pomfret, call Tom at 802-457-5834

Organic haylage 12% protein \$45 per ton, 15% protein \$55 per ton. 802-537-2435

4x4 round balage mixed grains cut late June. \$30 802-325-3707

1st cut 4x5 round bales. Don Pettis, 802-265-4566.

1st, 2nd & 3rd cut haylage and corn silage for sale at the bunk. Call Peter Gebbie 802-533-2984, leave a message.

June 15th cut mixed Hay, great quality, Will Load, 4' X 4' Round Bales, \$40/bale, quantity discount/cash prices available. Westford, 802-355-2930

2020 Organic certified 4x4 wrapped hay bales. 1st cut early June 45.00 2nd and 3rd 50.00. 802-793-7526 or 802-433-6127

Certified Organic First Cut Wrapped Round Bales for sale. Clover, Timothy and mixed grasses. Test samples and delivery available. Call Matt 802-558-3879.

80 4x5 dry 1st cut bales available on Hollow Rd Brandon Vt in Rutland County. Assistance in loading. Please call end leave a message at 802-247-6076 or 802-236-0144.

Vetch & rye seeds for sale, mixed in 50 lb. bags, \$1/lb. certified by Vermont Organic Farmers.Thornhill Farm, 198 Taylor Road, Greensboro Bend, VT 05842, todd@ thornhillfarmvermont.com, 802.441.3176

ADDISON COUNTY

Large squares available in Addison, Vt. Hay is stored under cover. Looks like a long winter ahead of us. Call now and make sure you have enough. Contact S.L. Moore at 802-463-3875.

1st cut 4x5 round bales never wet. Good horse & cow hay. 802-948-2627 or 802-558-0166

Certified organic, small square bales always stacked and stored under cover, 35-40lbs/ bale. \$4/bale, discounts available for large quantities. 802-989-0781 for inquiries.

Hay for Sale in Addison, VT. Large square bales and small squares. \$50-60 for Large, \$3.50-4.50 for Small. Delivery Available. Call Jack 802-989-8968

Hay for sale. \$3.25 bale. 802-377-5455

73 1st cut 5ft diameter round bales. \$30-\$35Orwell 802-948-2211

Straw for sale - \$7/bale for 50 or more. \$8/bale for less than 50, \$6/bale for all in the barn, approx. 350. from our winter rye harvest in August. certified organic. Thornhill Farm, Greensboro Bend, 05842, todd@ thornhillfarmvermont.com, 802.441.3176

BENNINGTON COUNTY

Corn Silage 1000 ton plus. Haylage 500 ton plus. Round bales 4x4. Square bales small. 802-394-2976

CALEDONIA COUNTY

Square baled hay- Top quality, VOF certified organic, generous sized. 1st cut \$4.50/bale, 2nd cut \$5.50/bale at the barn in Barnet. 802-592-3088

CHITTENDEN COUNTY

Round bales for horses. Clean first cut timothy mixed grass, quality net wrapped 4' X 5' bales. Never wet. \$45. each. 802- 879-0391 Westford.

15 large 5x5 round bales mixed grass w/some timothy + clover 800+lbs \$50 ea. call 899-4126 or e-mail

FRANKLIN COUNTY

Good Quality Hay 1c & 2c from western US & Canada. Alfalfa orchard & orchard sweet grass 18 to 20% plus protein large bales & organic by trailer loads. Large or small square bales of straw whole or processed at farm

we load on direct delivery by trailer load. Mountain View Dairy Farm 802-849-6266

LAMOILLE COUNTY

Organic baled straw. \$5.50/ bale. Certified organic. Valley Dream Farm, Cambridge, Vt. 802-644-6598 or valleydream@myfairpoint.net

ORANGE COUNTY

Approximately 375 ton of high quality grass and clover first and second cut, cut extremely early in 2018. First finished May 22, second finished July 2nd. Tests high in energy and protein. 45% harvested "hay in a day" \$50 per ton. Chris 802-522-9485

2019 first cut square hay bales for sale. \$4.00 per bale. Delivery available. Bonnie Kennedy, Chelsea, VT. 802-685-2292.

ORLEANS COUNTY

Pure alfalfa for sale and also 1st, 2nd and 3rd cut big/ small squares, round bales, wrapped or unwrapped, straw and switch grass. Call Richard at 802-323-3275.

Organic Certified Silage for Sale: We will deliver from our farm or you can come and pick up. Call for prices and delivery charge. 1-802-744-2444 or 802-274-4934 or 802-744-6553.

RUTLAND COUNTY

Good quality 1st and 2nd round bales available, wrapped and dried. Please call 802-446-2435.

4 x 4 wrapped bales for sale. Please call either 802-247-6076 or 802-236-0144

WASHINGTON COUNTY

200 – 4x4 round wrapped bales 1st \$45. 802-229-9871

WINDHAM COUNTY

2020 4X4 wrapped baleage. June cut. Certified organic, never wet. 802-254-6982

1st cut hay. Good horse hay. \$4.50 bale 802-254-5069

WINDSOR COUNTY

Hay for sale-400 square bales, Reading, Windsor County Vt. \$3.50 per bale at the barn. Call 802-484-7240

4x5 dry round bales \$45.00 delivery available. 802-457-

Rolling Meadows Farm: square bales in the field or barn \$4.00. Delivery can be arranged at \$5.50. Very nice hay from fertilized fields in the South Woodstock and Reading area. Call 802-484-5540 or goodfarmvt@gmail. com. Ask for David.

1st. cut dry round bales for sale. Never been rained on, stored under cover. \$50. @ 1st. cut haylage bales for sale. \$45. Rte. 5 Weathersfield Bow 802 -546-4340.

Dry Round Horse Hay, \$50/ Bale. 200 Bales left. Call 802-356-5030.

Sheep

Sheep Feeders - DS Livestock: 8' long, 4' long and two hexagonal. 20 years old - all steel frames. Cost new without shipping \$1,420. Package price \$475. bearmountainfarmVT@ gmail.com (802)-394-7852

A pure bred (w/papers)
Romney Ram 3 years old,
1 pure bred (w/papers)
Shetland ram for sale. 4
icelandic/romney ewes for
sale various ages/colors
(certified organic) 422 4704
leave message

Buying Lambs- 40 lb and up &1.75/ lb live weight. Call 802-674-2417. Pick up available

Wanted

Looking for several 4 spoked 4 ft. diameter pin wheels for an old Farmhand rake. The 90 degree rod hole holding the pin wheel on is 21/4 inches in diameter. Call 802-457-2218

This Month's Recipe

Slow Cooker Beef Stew

Ingredients

- 1 beef Bottom Round Roast (about 2-1/2 pounds), cut into 1-inch pieces
- 1/2 cup whiskey
- 1/4 cup plus 2 tablespoons apple cider vinegar, divided
- 1 can (6 ounces) tomato paste
- 4 tablespoons packed brown sugar, divided
- 1/4 cup molasses
- 1-1/2 teaspoons salt
- 1/2 teaspoon ground red pepper
- 1 tablespoon Dijon-style mustard
- 2 cups shredded carrots
- 2 cups diced Granny Smith apple

Instructions

- 1. Place beef Bottom Round Roast in 4-1/2 to 5-1/2 quart slow cooker. Combine whiskey, 1/4 cup vinegar, tomato paste, 2 tablespoons brown sugar, molasses, salt and pepper; pour over roast. Cover and cook on High 4 to 6 hours or on Low 8 to 10 hours, or until beef is, fork-tender.
- 2. Remove roast from slow cooker; shred with 2 forks. Skim fat from sauce as

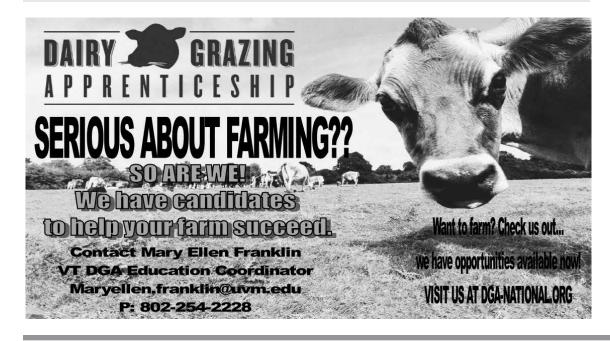


needed. Return beef to slow cooker; stir to combine with sauce.

3. Meanwhile, combine remaining 2 tablespoons vinegar, remaining 2 tablespoons brown sugar and mustard in large bowl. Add carrots and apples; mix well. Season with salt and black pepper, as desired. Refrigerate until ready to serve. Serve beef with slaw.

Cook's Tip: Thinly sliced pears, celery, red cabbage, green cabbage or bell peppers, or a pre-packaged slaw mix can be used in place of the carrots or apples.

Serving Suggestion: Sandwiches, tacos, nachos or sliders.





Working Lands Enterprise Funds Grantee Success Story

PINE ISLANDS COMMUNITY FARM

by Lynn Ellen Schimoler, VT Agency of Agriculture, Food & Market

n a time when bottlenecks along the supply chain for meat processing Vermont are a current a topic of import, the activities at Pine Island Community Farm (PICF) in Colchester is a location of inspiration on the horizon of problem solving for slaughter capacity. In Fiscal Year 2019, PICF received \$35,000 in Working Lands Funds through the Vermont Land Trust for improving their slaughter capacity. Pine Island worked closely with the Vermont Agency of Agriculture and other state entities to ensure the new building and wastewater facility comply with all water quality regulations and permitting requirements. The 230-acre farm is mix of riverfront, wetland, pasture, woods, and tillable acreage along the Winooski River. The Vermont Land Trust started Pine Island as a way to support New American, or refugee, farmers who wish to raise goats, chickens, or garden crops. The farmers sell pasture-grown animals to families who choose to slaughter their own goats and chickens for meat. Most recently, a commercial vegetable operation has taken root. Each individual farm enterprise is run by its owner as their own small business. The businesses

share the land, barns, and equipment with each other.

This collaborative concept was born out of frustration. when local refugee families would have to travel far and wide to access goat meat, and especially locallyproduced meat. The farm also provides an opportunity for people connect with land in a meaningful way, which is central to the land trust's mission. Seven acres of garden plots were added in 2015 and are farmed by about 60 families from 10 different countries. In September of 2019, the farmers and gardeners of Pine Island hosted their first annual harvest festival. inviting people to come to the farm, eat traditional dishes, walk along the river, and celebrate. Pine Island is also among the founding members of the Vermont Chevon Meat Network.

The partnership between Pine Island Community Farm and the Working Lands Enterprise Initiative has led to various financial. new market, supply chain, and environmental impacts. Combined with the ability to slaughter and process goats through the winter to increase sales, the farm has been able to supply high quality goat meat and raise its prices compared to 2018. Adding year-round slaughter capacity has dramatically improved both goat and chicken sales, and the financial position for

each farm operator. They are also now able to better meet growing demand for fresh local meat by resettled refugees in VT. With Covid-19, the farm has seen increased demand from resettled refugees both in VT and NH who are choosing to travel to Pine Island Farm rather than Boston to secure their goat and chicken meat.

Obtaining bucklings, or

young male goats, from goat dairy farms throughout Vermont has led to numerous new and beneficial partnerships for Pine Island. Avers Brook Goat dairy is the primary supplier of weaned bucklings and benefits by having PICF as customer for otherwise unwanted bucklings. PICF goat operation also purchases goats from other farms to meet customer demand for different goat varieties. Because of these supply chain partnerships, Chuda Dhaurali, manager of the Pine Island goat business is getting a stronger and healthier buckling to raise for meat. The PICF chicken operation has been able to expand with the new indoor processing facility and benefits from increased and year-round sales of goats as many customers also purchase chickens at the same time. Both the chicken and goat operations are on track to meet or exceed sales and other output goals in 2020. The majority of this growth is attributable to the goat

operation which is on track for record sales in 2020; up about 40%. The chicken operation is also seeing growth and is on track for record sales, likely only about 2%, yet still an increase. By significantly improving efficient and cost-effective farm operations (reducing time/ labor for each farm family), allowing streamlined and increased production, we know that overall quality of life is perhaps the biggest point of inspiration: families working hard to meet increased customer demand for their products during the pandemic, admirably navigating and improving the supply chain in challenging times.

The 2021 Renewal Season for Pesticide Products, Applicators and Dealers is Upon Us

By Linda Boccuzzo, VT Agency of Agriculture, Food & Markets

t is hard to believe, but 2021 is here. That means the renewal season for pesticide products, applicators and dealers has begun. Since we are all staying for a while, why not take this opportunity to get your renewal paperwork in early? Keep an eye out in your email inbox or mailbox. We have updated our software to allow registered users to renew online and pay by credit card or ACH. Emails have been sent already to registered users, but paper renewals will be sent out as well with instructions for online or paper renewal. To successfully renew, applicators and dealers should have enough continuing education credits and submit all payments and paperwork, including sales and use information (if required).

Renewal fees are:

\$30 per category for commercial, noncommercial and government (excluding federal) applicators,

\$25 for private applicators

\$75 per pesticide company license

\$50 for Pesticide Dealer licenses.

Please note, dealer renewals received greater than 30 days following expiration date of your current license (12/31/2020) will be charged a \$27.00 late fee.

Have questions about your certificate? Contact Anne Macmillan at anne.macmillan@vermont.gov or 802-828-3479.

Agency Staff Remember Jack Lazor

first met Jack at one of his on-farm workshops on grain growing and soil nutrient management. We became fast friends, as happened with anyone wanting to chat about organic agriculture. For the following dozen years or more, Jack was a wonderful and kind mentor to me in my small scale agricultural endeavors. He helped me procure seed for my small-scale grain growing projects, helped me design workshops for highschool students on

small-scale grain processing, and taught me ways to love the soil. His legacy will live long in our hearts and in the land of Vermont. Blessings to his family.

— Brooke Decker

Jack Lazor was a legend in the Vermont agricultural community as well as one of the forefathers of organic farming in the state he loved.

Jack's greatest attribute was his willingness to



Jack and Heather Darby at a Heirloom spring wheat bake and taste test at City Market

share his experience and knowledge with those entering the farmstead valve added marketplace. Jack's patience and efforts helped to give many a solid start in a difficult market. Jack set a high bar for those he left behind and should be a mentor and example for all of us in the agricultural community. Best wishes to Ann and the family and friends he has left behind.

— Greg Lockwood

Jack was a chatty guy, the kind you would end up talking to in the hallway at a conference and never quite make it into the actual event. Yet, in just an hour conversation with Jack, you could learn more than an entire conference would impart.

He cared deeply for the earth and took his role as a steward very seriously, and his work with the land reflected the thoughtfulness and ingenuity of his personality.

I had the pleasure of working with Jack on a few grants in the last couple years, and I truly hope that some state worker will find the records of his letters and notes that he provided with his grant applications and reports, now stored in files at the Agency of Agriculture. They were some of the longest and most honest letters I have received accompanying a grant report, but every word carried intention. And of

Butterworks farm 421 Trumpass Rd. West Field, Vermont 05874 December 11, 2018

To the VT Dept of Ag CEAP Program:

Enclosed is the 2018 CEAP Grant Report for

Butterworks Farm

First, I would like to think the Ag Dept for its

generosity and trust in us as stewards of the Earth.

course, they were always handwritten letters, which held more charisma in this era of endless emails. They were the kind of letters you actually wanted to read.

Jack was the kind of farmer who has become somewhat of legend, something larger than himself. He was someone who always liked to do things a little differently – a true innovator. This meant there was always a lot of notes all over Jacks field maps, and they were not always the easiest to discern... I am glad I had

the chance to meet him in my lifetime. Best wishes and sympathies to his family, his friends, and his farm.

— Nina Gage

Jack Lazor

continued from page 6

Anne and Christine. Thank you for the adventuresome food conversations over many years! Your commitment to caring for your land and providing an abundance of delicious food will not be taken for granted. Sending all my love, xo.'

For Agricultural Events and Resources Visit:

- The VT Agency of Agriculture Events Calendar: http://agriculture.vermont.gov/events/month
- UVM Extension Events Calendars: http://www.uvm. edu/extension/extension_event_calendars
- Vermont Farm to Plate Events Calendar: http:// www.vtfarmtoplate.com/events
- Northeast Organic Farming Association of Vermont Events Calendar: http://nofavt.org/events
- DigIn Vermont Events Calendar: https://www.diginvt.com/events/
- Required Agricultural Resources (RAPs) Resources: http://agriculture.vermont.gov/water-quality/regulations/rap
- Agency of Ag's Tile Drain Report now available here: http://agriculture.vermont.gov/tile-drainage
- VAAFM annual report available here: http://agriculture.vermont.gov/about us/budgets reports
- Farm First: Confidential help with personal or work-related issues. More info call: 1-877-493-6216 any-time day or night, or visit: www.farmfirst.org
- Vermont AgrAbility: Free service promoting success in agriculture for people with disabilities and their families. More info call 1-800-639-1522, email: info@vcil.org or visit: www.vcil.org.

For more agricultural events visit our Funding Opportunities & Resources for Businesses webpage at: http://agriculture.vermont.gov/producer_partner_resources/funding_opportunities



Governor Phil Scott cut his trees at the Meadow Ridge Tree Farm in Middlesex. Pictured from left to right, Governor Scott, Tamara, Patrick, and Aidan White.

Frostbite and Hypothermia

By Vermont Department of Health

rostbite happens when a part of your body is injured from freezing. It causes a loss of feeling and color in affected areas. People usually get frostbite on their nose, ears, cheeks, chin, fingers or toes. Because frostbite causes tissue numbness, it is often hard to tell that it is even happening. Frostbite can cause permanent damage, and severe cases can lead to amputation.

Hypothermia happens when your body temperature is abnormally low. It is caused by being in very cold temperatures for an extended period of time and can occur at milder temperatures if you are wet. When you are in cold temperatures, your body begins to lose heat faster than it's produced. Lengthy cold exposure can start to affect the brain, making it hard to think clearly or move well. This makes hypothermia especially dangerous,

because you may not know it is happening and won't be able to do anything about it.

Covering your skin, dressing in layers, staying dry, and limiting your time outside are all ways to help prevent frostbite and hypothermia. Older adults and young children, people that spend a lot of time outdoors, and people with conditions that make it harder to regulate their body temperature are at highest risk

BE INDUSTRY COUNCIL

DID YOU KNOW?

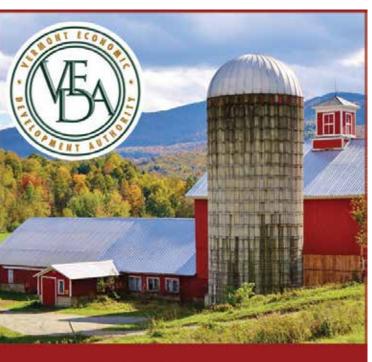
Every time you sell live cattle of any age, breed, purpose or number directly to another person, you are responsible for making sure that the \$1-per-head beef checkoff assessment is sent to the Vermont Beef Industry Council.

Visit us at **vtbic.org**

Vermont Beef Producers Association

Educating producers
Building cattle markets
Supporting Vermont's beef industry
Representing members statewide





Vermont Economic Development Authority

Financing for Vermont Farms, Diversified Agriculture and Forest Product Businesses

www.veda.org | (802) 828-5627